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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,069	06/22/2001	Mikko Ohvo	P281445	1005
909	7590	12/29/2004	EXAMINER	
PILLSBURY WINTHROP, LLP			ABELSON, RONALD B	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	
			2666	

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/869,069

Applicant(s)

OHVO ET AL

Examiner

Ronald Abelson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4, 6, 13, 15-17 and 20 is/are rejected.
- 7) ☒ Claim(s) 2, 5, 7-12, 14, 18, 19, 21, and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 6, 13, and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

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Claim 1 line 7 states, "tunneling lower level flow control information transparently over the lower transmission protocol level". It is unclear if the flow control information is being transmitted through the lower transmission protocol level or being transmitted at a level above the lower transmission protocol level. Furthermore, the term "transparently" is not defined in specification. Note, the same issues arise in claim 13.

Claims 6 and 17 state, "tunneling said flow control information in ATM cells in an ATM layer over the ATM connection". It is unclear if the term "over" refers to "through" or in a layer above.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 6, 13, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 1 line 7 states, "tunneling lower level flow control information transparently over the lower transmission protocol level". It is unclear if the flow control information is being transmitted through the lower transmission protocol level or being transmitted at a level above the lower transmission protocol level. Furthermore, the term "transparently" is not defined in specification. Note, the same issues arise in claim 13.

Claims 6 and 17 state, "tunneling said flow control information in ATM cells in an ATM layer over the ATM connection". It is unclear if the term "over" refers to "through" or in a layer above.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 3, 4, 6, 13, 15-17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art 'AAPA' in view of Siu (US 6,252,851) and further in view of Zhang (US 6,396,833).

Regarding claims 1 and 13, AAPA teaches transmitting data over a connection comprising a first leg supporting flow control on a lower transmission protocol level underlying the user level (fig. 1 see connection MS to RAN, pg. 4 lines 3-18), an intermediate second leg not supporting flow control on the lower transmission level (fig. 1 Iu, pg. 2 lines 34-36, pg. 4 lines

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19-20), and a third leg supporting flow control on the lower transmission protocol level (fig. 1 see connection box 12 to PSTN/ISDN, pg. 4 lines 3-18).

Regarding claim 13, AAPA teaches a first node (fig. 1 box RNC) between the first and second legs and a second node (fig. 1 box 3G MSC) between the second and third legs.

AAPA is silent on tunneling lower level flow control information transparently over the lower transmission protocol level of the second leg between the first and third legs in order to provide end-to-end flow control and thereby data integrity over the connection on the lower transmission protocol layer.

Siu teaches flow control between a source network (TCP) and a destination network (ATM) wherein the destination network transmits ACK packets to regulate the flow of the source network (col. 3 lines 6-26). The examiner corresponds the destination network of the reference with the third leg of the applicant and the source network with the first leg of the applicant.

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of AAPA to transmit ACK messages from the third leg / destination network to the first

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leg / source network. This would improve the system by providing a method of maintaining flow control between the networks.

Although the combination teaches flow control between the source and destination network, the combination is silent on tunneling.

Zhang teaches tunneling between two networks of the same type that have a different network in between (col. 6 lines 11-13).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of AAPA and Siu by sending flow control information from between the first and third legs via a tunnel. This would improve the system since tunneling allows two hosts of the same type of network to communicate even though a different network is in between. Note, in the system of AAPA both the first and third legs support TCP.

Regarding claims 3, 6, and 15, the second leg is an ATM connection (AAPA: pg. 2 lines 34-36), and that said lower transmission protocol level includes an ATM adaptation layer (AAPA: pg. 3 lines 9-11).



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Regarding claims 4, 16, and 17, encapsulating the flow control information in an ATM adaptation layer service data unit, transporting the ATM adaptation layer service data unit to the other end of the second leg in accordance with an ATM network protocol (Zhang: col. 6 lines 13-17) and extracting the flow control information from the ATM adaptation layer service data unit at the other end of the second leg / first type of network (Zhang: col. 6 lines 17-19).

Regarding claim 20, the system is a mobile communications system (AAPA: fig. 1 MS), and that the first and second nodes are network elements of the mobile communications system (fig. 1 box RNC, 3G MSC), and that the first leg is at the air interface between the mobile station and one of said network elements (fig. 1 see connection MS to RAN).

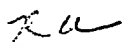
### **Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ronald Abelson  
Examiner  
Art Unit 2666

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SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800 12/20/09